IN THE CLAIMS

1. (Previously Presented) A method for diagnosing a condition of a disease characterized by non-physiological levels of hepcidin, comprising obtaining a tissue or fluid sample from a subject; contacting the sample with an antibody or fragment thereof that specifically binds to one or more carboxy terminal epitopes of SEQ ID NO: 2, and quantifying hepcidin level in the sample; wherein:

the disease condition is selected from disturbances of iron metabolism resulting in iron deficiency or overload, genetic and nongenetic iron overload diseases, liver diseases, diseases of utilization of iron, hematologic diseases, renal diseases, inflammations and infections, immunologic diseases and tumors;

the tissue or fluid sample is selected from kidney samples, liver samples, blood samples, and urine samples; and

the non-physiological level of hepcidin is indicative of the disease ~~condition~~.

2. (Withdrawn) The method of claim 1, wherein the antibody specifically binds a mid-portion epitope contained within amino acids 28 to 47 of hepcidin.

3. (Previously Presented) The method of claim 1, wherein the antibody specifically binds a carboxy terminal epitope contained within amino acids 70 to 84 of SEQ ID NO: 2.

4. (Previously Presented) The method of claim 1, wherein the quantifying comprises conducting an assay selected from the group consisting of a radioimmunoassay, a sandwich assay, a precipitin reaction, a gel immunodiffusion assay, an agglutination assay, a fluorescent immunoassay, a protein A immunoassay and an immunoelectrophoresis assay.

5. (Withdrawn) A kit for detecting a disease condition characterized by non-physiological levels of hepcidin, comprising, an anti-hepcidin antibody or fragment thereof that specifically binds to one or more mid-portion or carboxy terminal epitopes of hepcidin, and a reagent that binds directly or indirectly to the antibody or fragment thereof.

6. (Withdrawn) The kit of claim 5 wherein the anti-hepcidin antibody or fragment thereof is immobilized on a support.

7. (Withdrawn) The kit of claim 5 wherein the reagent comprises hepcidin complexed with a first binding molecule.

8. (Withdrawn) The kit of claim 7 wherein the first binding molecule is biotin.

9. (Withdrawn) The kit of claim 8 wherein the kit further comprises an enzyme complexed with a second binding molecule and a substrate of the enzyme.

10. (Withdrawn) The kit of claim 9, wherein the second binding molecule is streptavidin.

11. (Withdrawn) The kit of claim 9, wherein the enzyme is horse radish peroxidase, and the substrate comprises peroxide.

12. (Withdrawn) An antibody or fragment thereof that specifically binds to one or more mid-portion or carboxy terminal epitopes of hepcidin.

13. (Withdrawn) The antibody of claim 12, wherein the mid-portion epitope is contained within amino acids 28 to 47 of hepcidin.

14. (Withdrawn) The antibody of claim 12, wherein the carboxy terminal epitope is contained within amino acids 70 to 84 of hepcidin.

15. (Original) The method of claim 1, wherein said hepcidin comprises pro-hepcidin, hepcidin or fragments thereof.

16. (Original) The method of claim 1, wherein said hepcidin comprises pro-hepcidin.

17. (Withdrawn) The kit of claim 5, wherein said hepcidin comprises pro-hepcidin or hepcidin.

18. (Withdrawn) The kit of claim 5, wherein said hepcidin comprises pro-hepcidin.

19. (Withdrawn) The hepcidin of claim 12, wherein said hepcidin comprises pro-hepcidin or hepcidin.

20. (Withdrawn) The hepcidin of claim 12, wherein said hepcidin comprises pro-hepcidin.

21. (Withdrawn) The method of claim 1, wherein the disease is iron deficiency anemia.

22. (Previously Presented) The method of claim 1, wherein the disease is selected from the group consisting of hemosiderosis, hemochromatosis, secondary hemochromatosis, aceruloplasminemia, hypotransferrinemia, and atransferrinemia.

23. (Withdrawn) The method of claim 1, wherein the disease is sideroblastic anemia or thalassemia.

24. (Withdrawn) The method of claim 1, wherein disease is leukemia, polyglobulie, macrocytic, microcytic or normocytic anemia, anemia with reticulocytosis, or hemolytic anemia.

25. (Previously Presented) The method of claim 1, wherein the disease is chronic renal insufficiency, renal anemia, or hereditary hemochromatosis.

26. (Currently Amended) The method of claim 1, wherein the disease is iron deficiency anemia, hemosiderosis, hemochromatosis, secondary hemochromatosis, aceruloplasminemia, hypotransferrinemia, atransferrinemia, sideroblastic anemia, thalassemia, leukemia, polyglobulie, macrocytic, microcytic or normocytic anemia, anemia with reticulocytosis, hemolytic anemia, chronic renal insufficiency, renal anemia, hereditary hemochromatosis, an inflammatory disease or an infectious disease.

27. (Previously Presented) A method of detecting hepcidin comprising:

obtaining a tissue or fluid sample from a subject; and contacting the sample with an antibody or fragment thereof that specifically binds to one or more carboxy terminal epitopes of SEQ ID NO: 2; wherein the tissue or fluid sample is selected from a kidney sample, a liver sample, a blood sample, and a urine sample.

28. (Previously Presented) The method of claim 27, wherein hepcidin is prohepcidin.

29. (Previously Presented) The method of claim 27, wherein the antibody or fragment thereof binds to one or more epitopes within SEQ ID NO: 4.

30. (Previously Presented) The method of claim 29, wherein hepcidin is prohepcidin.